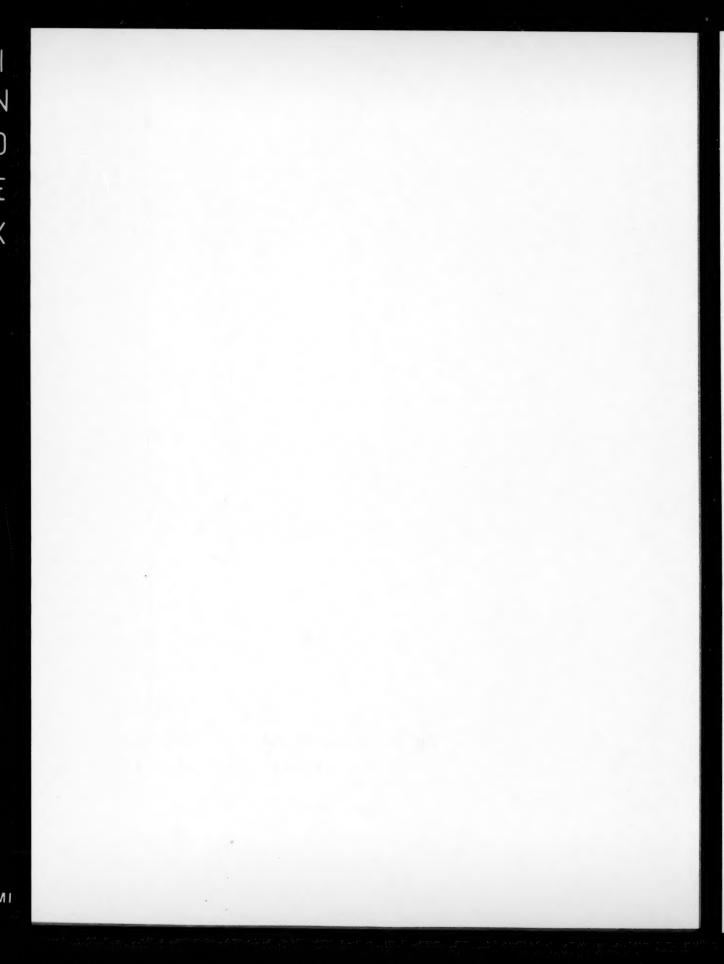
INDEX

CHEMICAL AND PETROLEUM ENGINEERING
Volume 9, Numbers 1-12, 1973



CHEMICAL AND PETROLEUM ENGINEERING

Volume 9, Numbers 1-12, 1973

(A translation of Khimicheskoe i Neftyanoe Mashinostroenie)

Bannikov, M. T.-789

A

Aérov, M. É. -277 Afanas'ev, N. A. -995 Agamirzoev, D. I. -555 Agapov, G. I. - 911 Aizengart, L. I.-1111 Akhmechet, Zh. N.-146 Akmukhametov, A. Kh. -836 Akshentseva, A. P. -236 Akubov, G. S. -16, 914 Aleshin, N. N. -400 Alievskava, L. V. -742 Alekseev, V. P. -959 Amirova, G. A. -619 Amosov, P. E. -499 Andreev, L. P. -722 Andreev, P. A. -983 Andryushechkin, V. I. -532 Anel'chik, D. E.-1075 Argunov, V. M. -345 Arkharov, A. M. -596 Arkov, V. G. -858 Aromatov, Yu. L. -97 Aremov. B. S. -253 Artemov, N. S. -336, 535 Asiryants, E. A. -157 Asviyan, M. B. -529 Avdeenko, V. N. -154, 924

В

Babaev, A. A.—947
Babaev, M. A.—375
Babaev, S. G.—55, 1065
Babich, A. V.—541
Babich, V. F.—178
Babich, V. S.—615
Badamyan, A. A.—610
Bagdasirov, M. R.—156
Bakhmutova, G. B.—
Bakhrev, P. P.—362
Bakhtin, L. A.—110
Balashov, E. V.—815
Balashov, Yu. A.—548
Balayants, A. A.—277
Bandura, V. K.—561

Barakin, V. M. -789 Baranov, N. S. -432 Baranovskii, Yu. I.-105 Barinov, Yu. D.-146 Barlyaev, Yu. K. -3 Barsukov, M. F. -930 Barvin, A. I. -608 Baskakov, A. P.-899 Basov, N. I. -495 Batyrev, V. I. -37 Beder, L. M. -360 Beider, B. D. -911 Belenkii, A. A. -291, 610 Belgorodskii, I. M. -234 Belinkii, A. L.-236 Belkin, M. I. -548 Belogorodskii, I. M. -324 Belov, A. D. -930 Belov, A. S. -454 Belugin, V. P. -373 Berdnikov, B. A. -552 Berestovskii, V. G. -908 Berezhnov, Yu. M. -858 Berezin, V. L. -73 Berezovskaya, L Ya. -206 Bereliner, Yu. I. -836 Bessonov, A. I. -858 Bezbozhnov, A. A. -938 Bikbaev, F. A. -73 Bilik, I. V. -893 Birkun, I. I. -91 Bitsan, I. F. -283 Blashchuk, V. E.-1016 Bobovich, S. Yu. -760 Bocharova, N. A. -426 Bodnarchuk, L. A. -186 Bodunov, I. V.-466 Bogatkov, L. G. -167 Bogdanov, E. D. -856 Bogomolnyi, V. M. -594 Bogomolov, M. F.-1046 Bogorad, E. E. -389 Boldyrev, I. V. -453 Bondarenko, S. G. -552 Bondarenko, V. N. -552

Bordonosenko, F. G.-424, 818 Borisoglebskii, B. N. -1053 Borisov, V. V.-1135 Borodin, A. V.-1103 Bortnikov, I. I. -588, 1005 Borodin, A. V.-273 Borodin, G. S. -938 Brazhnikova, A. V. -189, 380, 476, 672 Briskman, A. N. -824 Brodskii, V. M.-636 Brovornyi, G. P. -626 Bubnov, V. A. -61, 364 Budakov, A. A. -911 Budarin, A. M. -538 Budin, E. M. -804 Budorov, N. S. -899 Bukhalev, V. P. -1040 Bukharin, E. N. -33 Buneev, B. G. -141 Burenin, V. V. -921 Burnin, V. L. -506 Burmaka, V. L.-203, 385, 581 Burov, V. V. -739 Burtseva, I. K. -1100 Bush, F. V. -717 Bushmin, V. S. -1013 Butkevich, I. K. -995 Bykov, N. P. -725

C

Chaikovskii, V. I. -273
Chegurko, L. F. -985
Chekov, O. S. -120
Chekunov, V. D. -37
Chentsov, Yu. N. -917
Cheremskaya, V. I. -801
Chergeshtov, G. M. -492
Chernik, A. A. -105
Chernikov, V. A. -605
Chernobyl'skii, Yu. O. -808
Chernysh, V. P. -824
Chernyshov, V. V. -820
Cherpillo, F. P. -141
Cheshko, A. G. -924
Chevilenko, V. A. -1083

Chickaev, V. A. -914 Chicherov, L. G. -1135 Chirkin, V. N. -181 Chmykh, I. D. -165, 436, 940

Г

Danilov, M. V.-28, 262, 690, 1011 Davidenko, L. I. -644 Davtyan, V. G. -633 Davydov, V. I. -279 Davydov, V. S. -748 Dekhanov, V. I. -215 Deryagina, L. V.-240 Dmitrienko, A. A. -600, 812 Dobrygin, P. G. -279 Dokshitskii, E. A. -995 Dolzhkov, A. D. -322, 421 Domashnev, A. D. -993 Doroshenko, I. V. -779 Dotsenko, V. A. -1127 Drynov, V. S. -436, 940 Dubrovskii, E. V. -885 Dumskii, V. F. -1046 Dvorskii, L. S. -246 Dvortsin, M. D. -545 D'yakov, V. G. -717 Dytnerskii, Yu. I. -413 Dzhincharadze, E. K. -794

E

Ebanoidze, D. D. -50
Efimov, M. G. -1083
Egorova, V. A. -167
Elaev, I. P. -831
El'chinova, L. N. -902
Eremenko, E. N. -1061
Ermilov, V. A. -1019
Ermoshin, D. A. -1040
Erokhin, V. V. -456

F

Faidel', G. I.—329
Fainerman, I. A.—389
Fedchenko, V. A.—575
Fedenko, G. I.—211
Fedorov, V. F.—569
Fedotov, Yu. F.—91
Feduleev, Yu. A.—55
Fedyanin, V. I.—867
Fel'dman, L. Kh.—485
Fel'dman, M. P.—471
Fel'gendler, I. N.—735
Felipchuk, I. I.—495
Filin, N. V.—263, 1125
Fokin, G. M.—757
Fomin, L. A.—652

Fotokakis, V. T.-683 Furnichenko, V. V.-623, 720

G

Gal'braikh, G. N.-64 Galerkin, Yu. B. -306 Galyan, V. S. -1013 Galzman, E. G. -1075 Garnyi, A. I. -1051 Gavrilin, Yu. F.-37 Gazarov, R. E. -681 Gel'man, V. E. -471 Gel'perin, N. I. -33, 510, 706, Gerasimenko, S. S. -569 Gerlivanov, E. V. -914 Germanyuk, O. M. -279 Geskin, S. S. -136 Gladchenko, A. I. -567 Gladyshev, G. F.-1013 Gladyshko, V. S. -824 Glukhov, A. D. -327 Glukhovskii, M. A. -1103 Glushko, V. Ya. -535 Gogonin, I. I. -228 Goirakh, A. I.-815 Goncharov, D. D. -203 Goncharov, M. G. -230, 385, Gonibesova, I. P. -563 Gorbachev, S. P. -995 Gordeev, G. L. -858 Gorshkov, A. S.-1008 Goryainova, A. V.-1132 Govsha, A. G. -281 Grechka, V. M. -53 Gridin, V. B. -596 Grigor'ev, S. V.-3 Grinberg, I. S. -696 Grishaev, I. G. -1049 Grishin, V. S. -144 Grishko, V. Z. -33 Gromyko, M. I.-485 Gubenkov, N. Ya. -585 Gurbanov, A. G. -648 Gusakov, B. F. -298, 797 Gusev, B. M. -908 Guzok, Ya. V.-447

T

Ibatullin, R. L. -242 Ibragimov, E. S. -681 Ionin, Yu. F. -454 Issakyan, S. G. -619 Isachenko, A. A. -686 Isaev, M. I. -246 Isakov, A. P. -30 Isarov, F. G. -856
Iskenderov, I. N. -160
Ivanchenko, V. V. -466
Ivandrukov, Yu. T. -917
Ivanov, L. A. -854
Ivanov, L. B. -980
Ivanov, R. I. -324
Ivanov, V. I. -699
Ivanov, V. S. -160

K

Kabanov, F. N. -623 Kabanov, N. M. -57 Kaello, V. A. -854 Kafarov, V. V.-1003 Kakhramov, Kh. T. -333 Kalantarov, R. N. -1065 Kalinina, A. P. -242 Kalinina, V. N. -347 Kalinina, Z. M.-1013 Kalinnikov, I. V.-1061 Kalnin', I. M. -973 Kamakin, N. I. -253, 336, 844 Kamershtein, A. G. -355 Kanevskii, M. V.-82 Kapitanov, V. I. -499 Karachevtseva, N. V.-136 Karnkovskii, G. I.-1037 Karpenko, G. V.-50 Karpov, E. E. -739 Karpukhovich, D. T.-233 Kashevarov, M. E. -738 Kashigin, F. N. -591 Kashuba, I. A. -760 Kasimov, K. K. -1134 Kats, M. F.-11 Kaufman, S. N -927 Kavera, A. A. -575 Kershenbaum, V. Ya. -1037 Kershenbaum, Ya. M. -1037 Khairov, A. Kh. -240 Kharitonov, E. P. -911 Khibrikov, V. G. -738 Khimach, B. V. -735 Khimchenko, N. V.-183 Khiterkheev, S. K. -867 Kholin, B. G. -206 Khudobin, L. V. -538 Kindin, I. N. -532 Kim, D. G.-91, 219, 396 Kim, G. P. -917 Kim, S. Kh. -242 Kipnis, E. B. -585Kireev, I. M. -1116 Kireikova, V. L.-1003 Kirillov, V. I. -858 Kiselev, I. N. -1089

Kiyamutdinov, E. I. -558 Kleiman, A. Ya. -362 Kleiman, D. Sh. -810 Kleimenshova, S. S. -769 Klimishen, A. K. -801 Klimenko, A. P. -959 Klimov, V. N. -836 Klinov, I. Ya. -905 Klyuev, I. K. -313, 896 Kocharov, R. G.-413 Kogan, B. I. -81 Kogan, Yu. D. -583 Kokorev, D. T. -867 Kokushin, N. N. -827 Kolesnikov, A. A. -755 Kolesnikov, I. S. -575 Kolokolva, T. G. -340 Kolyvanov, B. V. -64 Komarov, M. M. -914 Komissarov, A. M. -686 Kondakova, O. N. -804 Kondrakov, S. P. -281 Kondrat'ev, S. N. -995 Kononova, V. I. -623, 720 Kopylov, V. T. -623, 720 Korchagin, A. P. -956 Kornilov, M. P. -976 Korol', S. S. -644 Korol'kov, V. V. -30 Korotkov, V. M. -1083 Korsakov, V. P. -950 Koryagin, A. A. -998 Kosarev, A. I. -1011 Kosenko, G. D. -279Koshko, I. I.-976, 1059 Koshonin, A. N. -485 Kosogorov, V. N. -896 Kostenko, B. G. -938 Kosyi, M. I.-626, 936 Kotenko, N. M. -936 Kotov, V. M. -706 Koval', V. P. -50 Kovalenko, V. P. -468, 704 Kovalev, M. V. -978. Kozlov, S. G. -860 Kozlov, Yu. N. -329 Kozlova, G. I. -329 Kozogorov, V. N. -313 Krasikov, A. N.-1086 Krasnov, V. I. -1029 Krasnoyarskii, V. V. -775 Krasnov, V. I. -73 Krichevskii, M. Yu. -150 Krichker, I. R. -696 Krichmara, A. E.-108 Kruglashov, V. V.-249

Krutkin, A. V.-1065

Kudrikova, E. D. -22 Kudryashova, T. I. -47 Kudryavtsev, E. A. -418 Kugushev, I. D. -827 Kukolev, F. N. -841 Kulabukhov, F. F. -890 Kuliev, F. Kh. -633 Kulikov, Yu. F. -263 Kul'kov, I. N. -878 Kunitskii, V. F.-91, 219, 396 Kurbanov, M. K. -333 Kurylev, V. F.-488 Kutepov, S. M. -28, 262, 690 Kuvalkin, A. N. -739 Kuz'menko, V. K. -552 Kuz'min, V. A. -342, 725 Kuznetsov, V. D. -824 Kuznetsova, M. V. -902 Kvasha, V. B.-510

L

Lamm, É. L. -125 Lando, B. S. -881 Laznik, G. T.-64 Len'shin, Yu. T.-183 Leonchik, B. I. -125 Leonov, A. I. -495 Lev, V. Z.-545, 1019 Levchenko, I. I. -613 Levchenko, N. I. -203 Levin, I. A. -1100 Levtonova, N. M. -532 Liberov, B. I. -295 Linda, F. S. -291 Litvinenko, K. M. -206 Litvinov, I. E. -856 Litvinov, V. V. -575 Lobanov, V. M -526Logvinenko, D. D. -1003 Lopushanskii, M. V.-283 Los', V. I. -959 Lositskii, N. T. -535 Lotsmanov, S. N.-1107 Lozovatskaya, L. P.-1100 Luk'yanenko, V. M. -340 Lur'e, B. I. -91 Lushpei, M. K. -22 Lyadov, A. V. -324 Lyalin, E. V. -820 Lyapin, V. V. -893 Lyubartovich, S. A. -495 Lyubomirskii, O. V.-130

M

Maimin, G. I. -368 Makarenko, V. P. -938 Makarov, V. M. -652 Makarova, L. S.-1094 Makarova, S. N. -844 Maklashin, V. I. -875 Maksimchuk, A. M. -722 Maksimenko, M. Z. -73 Makushkin, A. P. -263 Mal'gin, A. D. -950 Mak'kor, L. B. -360 Malov, D. I. -91 Malyshkin, Yu. F.-418 Mamontov, V. N. -573 Manilovskii, R. G. -347 Marakaeva, R. N.-1027 Marchenko, A. N. -711, 789 Marfitsyn, V. P. -251 Margolin, Yu. Ya. -875, 980 Markov, A. A. -163 Masin, M. M. -55 Maslennikov, I. M. -37 Maslennikov, V. S. -541 Medrish, I. N. -336 Medvedev, E. M. -664 Medvedev, S. M. -748 Medvedev, V. B. -329, 588 Medvedev, Yu. S. -717 Mel'nikova, A. A. -792 Meshalkin, N. N. -560 Meshcheryakova, V. V.-717 Mesyats, G. A. -722 Mikhailets, I. D. -1134 Mikhailov, V. N. -543 Mikhailov, V. V. -518 Mikhailovskii, Yu. A. -3 Mikhalev, M. A. -276 Mikhalev, M. F. -890 Mikheles, Ya. S. -640 Mikulenko, A. V. -608 Mikulin, F. I. -522 Minaev, G. A. -1049 Minukhin, L. A. -333 Mirkin, A. Z. -596 Mishnin, B. V.-313Mitus, A. E. -535 Mkrtychan, Ya. S. -373 Mochalina, R. B. -942 Modestov, B. S. -203, 887 Mokronsov, V. S. -774 Mokrushin, V. M. -231 Molchanova, V. D. -956 Moldavanov, O. I. -355 Molodkin, V. I. -919 Monakhov, V. N. -967 Morgulis, M. L. -503 Morogin, V. I. -989 Moroz, V. A. -1094 Morozenko, V. N. -144 Morozov, A. A. -526

Morozov, A. V. —878

Moskalenko, V. P. -256

Moskvin, N. I. —133

Motora, A. S. —725

Mukhin, I. N. —114

Murav'ev, L. L. —711

Murinets-Markevich, B. N. —664

Mushtaev, V. I. —1083

Muzychenko, O. A. —20

N

Nagornyi, V. E. -801 Nasibov, Sh. G. -555 Nastasyuk, I. G. -561 Nechiporenko, V. G. -722 Neklyudov, G. V. -87 Nelidina, A. G. -930 Nerubatskaya, V. D. -711 Nesterenko, I. M. -144, 626, 936 Nesterenko, V. E. -368 Nesterovich, A. A. -794 Nezhdanov, V. V. -1037 Nikitenko, N. Ya. -978 Nikitin, N. V. -1046 Nikitin, Yu. F. -327 Nikolaenko, A. D. -506 Nikolaev, A. S. -995 Nikolaev, V. M. -610 Nikushev, E. G. -890 Noakh, M. Kh. -636 Nosov, M. E. -664 Novichenko, N. S. -167 Novikov, A. Ya. -921 Novikov, G. A. -908 Novikov, E. P. -666 Nuzha, N. N. -666

0

Ofitserov, A. M. -336, 535 Ogorodnikova, G. V. -236 Oliferov, V. V. -387 Ondar, A. A. -352 Onoprienko, L. M. -1016 Osinskii, I. G. -1103 Otroshko, N. T. -73, 610

P

Paikin, I. Kh. -573
Pakhomov, V. S. -429
Palii, I. N. -342
Panferov, V. I. -917
Panin, V. D. -545
Parafenko, N. I. -608
Parfenova, N. V. -1011
Parkhomenko, G. N. -854
Parshin, A. G. -429

Pasternak, F. O. -561 Pavlenko, G. I. -283 Pavlov, P. A. -804 Pavlova, V. K. -905 Pavlushenko, I. S. -588, 1005 Pedriiko, S. V. -424 Perederii, V. S. -274 Perestoronin, I. K. -630 Pershin, A. F. -101 Pertsev, L. P. -801 Peshkovskii, S. L. -867 Petrov, B. M. -626 Petukhov, S. S. -1089 Pikropivnyi, S. F. -847 Pirogov, Yu. F. -1021 Pisarenko, E. Ya. -130 Piskunova, A. I. -1013 Plaksin, V. G. -1086 Planovskii, A. N. -1083 Plaskin, K. M. -760 Platonov, V. A. -466 Plotnikov, A. I. -661 Plyushch, O. B. -683 Poberezkin, A. E. -959 Podkovyrin, A. I. -30 Podlipskii, M. F. -573 Podshchipkova, E. I. -1003 Polevoi, S. N. -642 Polushkin, V. A. -67, 367, 1041 Polyakov, Yu. N. -329 Polyvyanyi, A. P. -552 Popov, B. V. -978 Popov, K. A. -760 Popova, G. S. -742 Popovskii, V. Yu. -824 Porshneva, L. D. -1019 Poselyagin, Yu. D. -919 Postikov, V. S. -714 Posysoev, G. S. -887 Poteiko, A. I. -246 Pravdin, V. G.-890 Pritykina, L. S. -28, 262, 1011 Prodan, V. D. -101 Pronin, A. I. -1049 Pronyakin, N. N. -815 Proskunov, I. G. -317 Provolotskii, A. E. -144 Prostorov, I. S. -748 Pryanichnikova, T. V. -450 Puchkov, Yu. A. -120

F

Rabinovich, A. M. -727, 947 Rachkov, V. I. -488 Rachkov, V. I. -262, 690 Radchenko, B. G. -91 Radzievskii, V. N. -1107

Ramazanov, R. A. -87, 333, 1136 Rappoport, L. I. -165, 940 Rasulbekov, R. I. -108 Ratishvili, M. A. -50 Razzhivin, V. I. -333 Red'ko, A. P. -130 Reibakh, M. S. -1008 Reshetnikov, E. K. -139 Revenkova, I. S. -1132 Reznik, N. V. -444 Ring, I. L. -911 Riskin, I. V. -775 Rodinov, L. A. -1021 Rogozhina, N. G. -917 Romanenko, N. T. -327 Romanova, L. A. -1022 Roshchin, V. N. -878 Rotin, B. S. -748 Rozanova, L. M. -704 Rozkin, M. Ya. -608 Rozovskii, N. I. -375 Rubakh, Z. Kh. -67 Rudney, V. A. -324 Rumyantsev, O. V. -101 Rutman, G. I. -324 Ryadinskii, N. A. -219, 396 Rybakov, K. V. -704 Rymar', V. I. -1107 Ryumin, S. V. -458, 762 Rzaev, F. G. -1136

S

Saakov, Yu. A. -727 Safin, R. Sh. -526 Sagalaev, G. V. -699 Sagir'yants, N. M. -454 Slaazkin, K. A. -989 Samoilov, M. S. -281 Sapsai, M. D. -53 Sarbatova, N. I. -875, 980 Savchenko, A. P. -471, 808 Savchenko, P. D. -579 Savchenko, S. P. -626, 936 Savel'eva, V. M. -841 Savinova, E. N. -815 Seleznev, K. P. -306 Semak, V. G. -302 Semenov, P. A. -1008 Sergeev, G. A. -279 . Sergienko, V. K. -993 Sevastenko, Yu. I. -613 Severov, G. F. -342 Shakhova, N. A. -518, 1049 Shapiro, A. D. -742 Shapiro, I. S. -911 Shapoval, V. S. -1103 Shashikhin, Yu. P. -91

Shataev, E. V. -770 Shcherbinina, V. A. -575 Shchuchinskii, S. Kh. -792 Shelenkov, G. M. -1016 Shelyakov, O. P. -1003 Shestakova N. V. -236 Shetulov, D. I. -591 Shevchenko, A. I. -914 Shevelkin, B. N. -760 Shevich, Yu. A. -522 Shibarov, V. V. -360 Shinkarenko, A. A. -613 Shinkarenko, V. I. -139 Shishkin, V. I. -881 Shivinkim, Yu. A. -87 Shkola, P. A. -340 Shkoropad, D. E. -794 Shlimak, I. V. -555 Shmatkov, V. A. -105 Shneider, Yu. G. -447 Shnepp, V. B. -1061 Shomin, I. P. -1089 Shpakov, O. N. -694 Shpanov, N. V. -1077 Shtandenko, V. I. -1021 Shteingart, L. A. -748 Shteingrad, Ya. L. -186 Shul'man, Ya. M. -110 Shumikhin, M. R. -862 Shumov, V. S. -973 Shumratova, G. N. -133 Shumskaya, L. S. -174 Shustrov, V. S. -141 Shvab, N. F. -683 Shvarts, A. I. -983 Shvarts, G. L. -1094 Sibirko, V. P. -114 Siderko, Yu. A. -613 Sidorenko, A. K. -139 Simkin, Yu. D. -930 Simonenko, N. A. -20 Sirotkina, V. P. -630 Sitnik, N. P. -541 Sklovskii, G. O. -851 Skuratov, V. K. -989 Skuratova, E. A. -905 Skvirskii, S. A. -1065 Slobodyanik, I. P. -324 Smirnov, E. N. -418,953 Smirnov, E. V. -953 Smirnov, M. L. -387 Smol'skii, K. V. -690 Sneper, A. K. -355 Sobolev, V. V. -317 Sokol, A. N. -810 Sokolotov, V. I. -97 Sokolov, V. I. -360, 492

Skolova, A. V. -432, 902

Solodchenko, V. V. -583 Solopenkov, K. N. -231, 893 Solyanik, O. N. -711 Sorokin, G. M. -1127 Sorokina, I. V. -488 Sosnovskii, I. A. -908 Sozonov, Yu. A. -804 Starodubov, R. M. -770 Stepanov, G. A. -242 Stepanyan, E. V. -333 Stepanyan, V. A. -610 Storchai, E. I. -432, 841, 902 Strizhak, L. Ya. -306 Subbotin, E. P. -731 Sulima, A. N. -120 Suponitskii, E. Z. -573 Suprun, P. P. -483 Svetlichnyi, G. A. -869 Svetlov, Yu. V. -812 Svidenyuk, I. B. -424,818 Svitka, N. I. -510 Svorkova, I. N. -228 Sychev, A. A. -336

1

Taras'ev, Yu. I. -393, 573 Tarasov, A. K. -1116 Tarat, E. Ya. -706 Tarshis, Tu. D. -1121 Tarynin, E. K. -506 Tashchilova, L. P. -105 Tat'yanchenko, B. Ya. -206 Tavadze, F. N. -50 Televnoi, A. V. -919 Tel'perin, N. I. -231 Terzi, N. I. -626, 936 Tetnev, V. S. -560 Teverovskii, B. M. -851 Tikhnov, P. M. -191 Timofeev, A. V. -277 Timoshchuk, L. A. -847 Tkachenko, A. F. -462 Tkachenko, S. I. -42 Tobak, B. V. -438 Treskunov, B. S. -1040 Tret'yakova, A. I. -755 Trinchuk, B. E. -1075 Trofimov, V. L. -499 Truba, D. N. -940 Trudova, T. I. -644 Trukhin, A. Kh. -70 Trusov, B. K. -503 Tsantker, K. L. -6 Tsapov, Yu. P. -995 Tsarevskii, V. V. -57 Tsiperson, Yu. G. -240 Tsiporkin, Yu. Kh. -246

Tsirlin, A. M. -1008

Tsympov, A. I. -938
Tsysin, M. I. -33
Tul'chinskii, E. A. -324
Tumanov, A. I. -812
Tumanyan, M. S. -619
Tumanov, A. I. -600
Turkovskaya, A. V. -47
Tyabin, N. V. -281
Tygipko, D. I. -200
Tyutyunnikov, A. B. -120, 506

V

Vagin, A. A. -110 Vakurin, Yu. P. -485 Val'dberg, A. Yu. -706 Valuiskii, V. Ya. -1063 Vasil'chuk, B. F. -633 Vasilenko, I. I. -50 Vasil'ev, K. V. -686 Vasil'ev, V. N. -267 Velichkin, N. N. -594 Velichko, A. A. -1033 Vilim, Yu. V. -930 Vinogradov. Yu. M. -1094 Vinokur, Yu. N. -471 Visel'berg, M. B. -563 Vishney, I. P. -223 Vishnyakov, V. V. -389 Viter, A. V. -789 Vitkovskaya, N. P. -380, 672 Vladimirov, S. M. -1913 Vlasov, P. G. -605 Voinitskii, V. Yu. -91 Volkov, I. A. -890 Volkova, M. D. -770 Volodin, V. D. -569 Volynchik, A. Z. -251 Voronchikhin, V. U. -150 Voronkova, B. D. -450 Vorotnikov, V. Ya. -441,636 Vorotyntsev, V. B. -1089 Voznesenskii, V. A. -1111 Vystoropskaya, A. A. -120

Y

Yablonskii, B. P. -80
Yakuba, V. I. -274
Yampol'skii, S. L. -683
Yankov, V. M. -360
Yaremenko, O. V. -1033
Yarkho, G. M. -150
Yarmak, V. A. -506
Yaroslavtsev, R. A. -380, 672
Yartsev, I. K. -905
Yurkov, E. S. -352

\mathbf{z}

Zaitsev, M. M. -706

Zak, A. A. -613
Zakryatin, M. I. -271
Zamkovets, V. F. -160
Zaostrovskii, F. P. -1086
Zaretskii, V. F. -37
Zarif'yan, A. Z. -105
Zemtsov, V. M. -1069
Zhdanov, V. D. -133, 236
Zheltova, G. A. -236
Zherebtsov, Yu. V. -683

Zhiburtovich, G. G. -573
Zhilinskii, I. B. -73, 1029, 1121
Zhil'tsov, N. I. -731
Zhirov, M. V. -746, 1125
Zholudev, N. A. -875, 980
Zhukov, V. V. -623
Zhuteev, G. I. -468
Zingerman, M. E. -921
Zinkin, A. N. -919
Zisel'man, B. G. -652

Ziv'yakov, P. P. -307 Zlobina, K. A. -783 Zolotar', A. I. -76, 267, 1033 Zorin, V. D. -655 Zotikov, V. S. -426 Zubchenko, A. S. -1019 Zubenko, A. G. -585 Zuev, A. V. -306 Zvorykin, N. M. -1121 Zybin, Yu. A. -818

CHEMICAL AND PETROLEUM ENGINEERING

Volume 9, Numbers 1-12, 1973

(A translation of Khimicheskoe i Neftyanoe Mashinostroenie)

	Engl./	Russ.
VOLUME 9, NUMBER 1, JANUARY, 1973		
Scientific and Technical Cooperation between CMEA Member Countries in the Field of Chemical and Petroleum Engineering - Yu. K. Barlyaev, S. V. Grigor'ev,		
and Yu. A. Mikhailovskii. Enameled and Ceramic Chemical Equipment in the Current Five-Year Period	3	1
- K. L. Tsantker The "Kompressor" Plant in the Struggle to Fulfill the Decisions of the Twenty-Fourth	6 ·	2
Congress of the Communist Party of the USSR (CPSU) — M. E. Kats Organization of Socialist Competition at the Izhevsk Heavy-Papermaking Machinery	11	5
Construction Plant (the Izhtyazhbummash Plant) — G. S. Akubov	16	8
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Design of Extrusion Equipment for Producing Sheets from Thermoplastic Materials		
- N. A. Simonenko and O. A. Muzychenko	20	9
Vessels - E. D. Kudrikova and M. K. Lushpei	22	10
Evaporators — L. A. Krasnyanskii and V. I. Tkach	25	11
- M. V. Danilov, S. M. Kutepov, and L. S. Pritykina	28	13
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES Filtering a Fibrous Suspension through a Vibrating Grid – A. I. Podkovyrin,		
V. V. Korol'kov, and A. P. Isakov	30	13
E. N. Bukharkin, V. Z. Grishko, and M. I. Tsysin	33	15
I. M. Maslennikov, V. F. Zaretskii, V. D. Chekunov, and Yu. F. Gavrilin Evaluation of the Methods of Intensifying the Performance of Evaporators with an	37	17
External Boiling Zone - S. I. Tkachenko	42	19
NEW MATERIALS AND CORROSION CONTROL		
Study of the Corrosion Resistance of Aluminum Tube Specimens in 10% Acetic Acid — T. I. Kudryashova and A. V. Turkovskaya	47	22
Steels for Pump-Compressor Pipe - G. V. Karpenko, F. N. Tavadze,		-
I. I. Vasilenko, D. D. Ebanoidze, V. P. Koval', and M. A. Ratishvili	50	23
EQUIPMENT MANUFACTURING TECHNOLOGY		
Automatic Welding of T Joints in the Drum Body of a Vacuum Filter before Rubberizing — M. D. Sapsai and V. M. Grechka	53	25
Prevention and Elimination of Deformation during the Manufacture of Chemical		
Equipment - Yu. A. Feduleev and M. M. Masin,	. 55	26

	Engl./R	luss.
Induction Apparatus for Local Normalization of Electroslag Welded Circumferential		
Joints — J. J. Tsarevskii and N. M. Kabanov	57	27
Manufacture of Chemical Equipment - V. A. Bubnov	61	28
ORGANIZATION AND ECONOMICS OF PRODUCTION Determination of the Level of Technology of Mechanoassembly Plants in Machine-Building Enterprises - G. N. Gal'braikh, B. V. Kolyvanov,		
and G. T. Laznik. The Experience of the Dzerzhinskii Chemical Engineering Works in Organizing Delivery of Complete Process Line Equipment – V. A. Polushkin	64	30
and Z. Kh. Rubakh	67	31
QUALITY, RELIABILITY, AND LIFETIME		
Reliability and Service Life of Reciprocating Compressor Glands — A. Kh. Trukhin Main Factors Affecting Gas Abrasive Wear of Elbows in Pneumatic Conveying Pipes — F. A. Bikbaev, V. I. Krasnov, M. Z. Maksimenko, V. L. Berezin,	70	33
I. B. Zhilinski, and N. T. Otroshko	73	35
Wear of Materials under Hydroabrasive Conditions - A. I. Zolotar'	76	36
EXCHANGE OF EXPERIENCE		
A Device for Diameter Measurement - B. P. Yablonskii	80	38
Semiautomatic Internal Grinding Machine with In-Process Gaging — B. I. Kogan Rational Manufacture of Conical Parts for Vessels and Other Equipment	81	38
- M. V. Kanevskii	82	
INFORMATION Production of New Equipment	84	40
- Yu. A. Shirinkin, R. A. Ramazanov, and G. V. Nekludov	87	41
Yu. F. Fedotov, V. Yu. Voinitskii, B. I. Lur'e, I. I. Birkun,		
B. G. Radchenko, D. G. Kim, V. F. Kunitskii, and Yu. P. Shashikhin	91	43
VOLUME 9, NUMBER 2, FEBRUARY, 1973		
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT		
Development of Centrifuges with Hydromechanical Deposit Discharge for Continuous Separation of Difficulty Filterable Suspensions – V. I. Sokolov		
and Yu. L. Aromatov	97	1
A Tightening Procedure for Fastening Bolts Applicable to High-Pressure Apparatus		_
- O. V. Rumyantsev, V. D. Prodan, and A. F. Pershin	101	3
- V. A. Shamatkov, A. Z. Zarif'yan, Yu. I. Baranovskii,	105	
and L. P. Tashchilova	105	5
- A. E. Krichmara and R. I. Rasulbekov	108	7
and L. A. Bakhtin	110	8
INVESTIGATION AND CALCULATION OF THERMOPHYSICAL PROCESSES		
Study of the Effect of Various Parameters on the Output of Type FGP Centrifuges		
- V. P. Sibirko and I. N. Mukhin	114	10
A. N. Sulima, Yu. Puchkov, A. B. Tyutyunnikov, and O. S. Chekhov	120	13

	Engl./F	Russ.
Shape of the Spray Cone in Fluid Dispersal by Centrifugal Disks - E. L. Lamm		
and B. I. Leonchik	125	16
Remote Measurement of Temperature of Rotating Objects with a Contactless Current Pick-Up - O.V. Lyubomirskii, É. Ya. Pisarenko, and A. P. Red'ko	130	19
NEW MATERIALS AND CORROSION CONTROL		
New Material for the Manufacture of Separators Operating in Hostile Environments		
- N. I. Moskvin, V. D. Zhdanov, and G. N. Shumratova	133	20
- S. S. Geskin and N. V. Karachevtseva	136	22
V. I. Shinkarenko, and A. K. Sidorenko	139	23
EQUIPMENT MANUFACTURING TECHNOLOGY		
Fabrication of Densely Finned Tubes for Air Cooled Equipment - É. P. Cherpillo,		
B. G. Buneev, and V. S. Shustrov	141	24
Hydroabrasive Cleaning Process of Vulcanizing Molds - V. N. Morozenko, A. E. Provolotskii, I. M. Nesterenko, and V. S. Grishin,	144	9.0
Determination of the Diffusion Coefficient of Carbon in Cast Iron for Enameling	144	26
- Yu. D. Barinov and Zh. N. Akhmechet	146	27
ORGANIZATION AND ECONOMICS OF PRODUCTION		
A System for the Classification and Coding of Production in the Chemical and		
Petroleum Engineering Industry - V. U. Voronchikhin, M. Yu. Krichevskii,		
and G. M. Yarkho	150	29
Enterprises - V. N. Avdeenko	154	30
Make Way for Sociological Research - M. R. Bagdasarov and E. A. Asriyants	157	32
QUALITY, RELIABILITY, AND LIFETIME		
The Reliability of Sprocket Chains Determined from the Strength Conditions of the		
Connections - V. F. Zamkovets, V. S. Ivanov, and I. N. Iskenderov	160	33
Wear of Highly Alloyed Steels and Alloys in an Abrasive Gas Stream - A. A. Markov	163	35
EXCHANGE OF EXPERIENCE		
One-Piece Cast Impellers for Axial Pumps - L. I. Rapport and I. D. Chmykh	165	36
Method of Repairing Coatings of Rubberized Chemical Equipment - L. G. Bogatkov,		
V. A. Egorova, and N. S. Novichkov	167	37
INFORMATION		
Production of New Equipment. The AVV-5/2 Compressor Unit and Type OP60; OK60;		
OT60; DK60; DT60; OP70; OK70; OT70; DK70; DT70; OP80; OK80; OT80; DK80;		
DT80 Mechanical Seals	169	38
First All-Union Scientific and Technical Conference on Refrigeration Engineering		
- L. S. Shumskaya	174	41
Porcelain Centrifugal Pumps - V. F. Babich	178	43
New Designs for Pneumoelectric Selector Valves - V. N. Chirkin and P. M. Tikhonov Processing Results from Ultrasonic Quality Control of Welded Joints with a Punch-Card	181	45
Computer System - Yu. T. Len'shin and N. V. Khimchenko	183	45
From the Editorial Board	185	46
FROM FOREIGN TECHNOLOGY		
Plastic Pipeline Valves — L. A. Bodnarchuk and Ya. L. Shteingard	186	47
Centrifuge for Difficult to Separate Slurries - A. V. Brazhnikova	189	48

	Engl./	Russ.
VOLUME 9, NUMBER 3, MARCH, 1973		
Let us Fulfill the Plan for the Third, Decisive Year Ahead of Schedule	195	1
NEW MACHINERY AND EQUIPMENT Unit for Fabricating Corrugated Drainage Pipe - D. I. Tygipko	200	5
V. L. Burmaka, N. I. Levchenko, and D. D. Goncharov DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Multirotor Centrifuge for Dewatering Low-Particle-Strength Granulated Materials - B. G. Kholin, B. Ya. Tat'yanchenko, K. M. Litvinenko, and	203	6
L. Ya. Berezovskaya	206	7
- G. I. Fedenko	211	10
- V. I. Dekhanov	215 219	12
- D. G. Kim, V. F. Kunitskii, and A. A. Ryadinskii	219	13
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES Bubble Boiling Crisis of Cryogenic Liquids on Inclined Surfaces — I. P. Vishnev Heat Transfer in the Boiling of Freon-21 on Ribbed Surfaces — I. I. Gogonin	223	16
and I. N. Svorkova	228	18
and V. M. Mokrushin	231	20
- D. T. Karpukhovich NEW MATERIALS AND CORROSION CONTROL Properties and Structure of Kh15N9Yu Steel Forgings - A. L. Belinskii, A. P. Akshentseva, V. D. Zhdanov, G. A. Zheltova, N. V. Shestakova,	233	21
and G. V. Ogorodnikova	236	23
Protection of Austenitic Corrosion-Resistant Steel against High-Temperature Scale Formation - A. Kh. Khairov, L. V. Deryagina, and Yu. G. Tsiperson Effect of Heating on Mechanical Properties of AMg5 [5056] Aluminum Alloy	240	25
- G. A. Stepanov, A. P. Kalinina, R. L. Ibatullin, and S. Kh. Kim	242	25
EQUIPMENT MANUFACTURING TECHNOLOGY Experience in Use of Titanium Alloys for Manufacturing Rotors of Centrifugal Refrigeration or Gas Compressors — L. S. Dvorskii, M. I. Isaev, A. I. Poteiko,		
and Yu. Kh. Tsiporkin	246	28
Metal Mold Casting of Half-Couplings - V. V. Kruglashov	249	29
Milling Head - V. P. Marfitsyn and A. Z. Volynchik	251	30
- N. I. Kamakin and B. S. Artemov	253	30
ORGANIZATION AND ECONOMICS OF PRODUCTION Assessment and Incentives in Special Priority Plans – V. P. Moskalenko	256	32
NORMALIZATION AND STANDARDIZATION A Field Standard for Strength Design of Vessels and Apparatus of Titanium		
- M. V. Danilov, S. M. Kutepov, L. S. Pritykina, and V. I. Rachkov	262	35
QUALITY, RELIABILITY, AND LIFETIME Durability of Seals for Crygogenic Equipment — Yu. P. Kulikov, A. P. Makushkin,		
and N. V. Filin	263	36

H

	Engl./	Russ.
Failure Models for Parts in Flow Passages of a Slush Pump - V. N. Vasil'ev		
and A. I. Zolotar'	267	38
EXCHANGE OF EXPERIENCE		
Turret Gas Cutting Machine with 7000-mm Diameter Faceplate — M. I. Zakryatin Nickel-Free Refractory Steel for Fabrication of Hearth Guides in Reheating Furnace	271	40
- A. V. Borodin and V. I. Chaikovskii	273	41
- V. S. Perederii and V. I. Yakuba	274	42
Dial-Indicator Knife Edge for Precision Mounting of Milling Cutter - M. A. Mikhalev	276	42
INFORMATION		
Regular Packings for Industrial Columns – A. V. Timofeev, A. A. Balayants, and M. E. Aerov	077	40
Heater with an Electric Heating Element Submerged in a Fluidized Bed – B. G. Dobrygin,	277	43
G. D. Kosenko, G. A. Sergeev, V. I. Davydov, and O. M. Germanyuk	279	44
Measuring Torque on the Shaft of a Screw Machine - S. P. Kondrakov, A. G. Govsha,		
N. V. Tyabin, and M. S. Samoilov	281	44
- M. V. Lopushanskii, G.I. Pavlenko, and I. F. Bitsan	283	46
BIBLIOGRAPHY	1.4	
New Books	286	47
VOLUME 9, NUMBER 4, APRIL, 1973		
Working Experience of the Borets Plant in Improving the Quality of the Compressors		
which It Produces – A. A. Belen'kii and É. S. Linda	291	1
NEW MACHINERY AND EQUIPMENT		
A Gas-Fuel-Oil Burner for Tube Furnaces - B. I. Liberov	295	3
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Simulated Stressed States of Bowls in Centrifugal Machinery in Polarization-Optical		
Studies - B. F. Gusakov	298	5
The Calculation of Unilateral Magnetic Attraction Forces in Electric Drive Motors for		_
Submersible Deep-Well Pumps - V. G. Semak Test Designing Centrifugal Compressor Wheels according to a Stated Velocity	302	7
Distribution — Yu. B. Galerkin, A. V. Zuev, K. P. Seleznev, and L. Ya. Strizhak Digital Computer Design of the Main Operating Components of Reciprocating Compressor	306	8
Units - V. N. Kosogorov, B. V. Mishinin, and I. K. Klyuev	313	13
Design of Standard Steam Traps - V. V. Sobolev and I. G. Proskunov	317	15
INVESTIGATION AND CALCULATION OF THERMOPHYSICAL PROCESSES		
Calculation of Material Residence Time in a Type SN Mixer – A. D. Dolzhkov	322	18
Geometric Dimensions and Efficiency of Commercial Jet Trays – I. P. Slobodyanik, I. M. Belgorodskii, A. V. Lyadov, É. A. Tul'chinskii, V. A. Rudnev,		
G. I. Rutman, and R. I. Ivanov.	324	19
Allowance for Heat Exchange in Calculating High-Pressure Pneumatic Drives	021	
- N. T. Romanenko, Yu. F. Nikitin, and A. D. Glukhov	327	21
A Study of the Operation of a Gear Pump on Highly Viscous Polymer Solutions		
- Yu. N. Kozlov, Yu. N. Polyakov, G. I. Kozlova, V. D. Medvedev,	220	22
and G. I. Faidel'	329	22
Promoters – L. A. Minukhin	333	24
EQUIPMENT MANUFACTURING TECHNOLOGY		
Improvement of Welding Materials and Technology for Welding Chlorinators Made of		
Nickel - N. I. Kamakin, A. A. Sychev, I. N. Medrish, N. S. Artemov,		
A. M. Ofitserov, and Yu. M. Kaz'min	336	25

	Engl./	Russ.
Protecting the Sheet-Steel Drum of Column Apparatuses with Polymeric Materials		
 V. M. Luk'yanenko, T. G. Kolokolova, and P. A. Shkola Making Bulky Apparatus from Polypropylene by the Sintering Method - V. A. Kuz'min, 	340	27
I. N. Palii, and G. F. Severov	342	28
- V. M. Argunov	345	29
ORGANIZATION AND ECONOMICS OF PRODUCTION Procedure for Normative Calculations of Prospective Demand for Production of Metal Blanks — R. G. Manilovskii and V. N. Kalinina	347	30
Graphical Method for Planning and Managing the Estimated Cost of Scientific-Research and Experimental-Design Operations — A. A. Ondar and E. S. Yurkov	352	34
QUALITY, RELIABILITY, AND LIFETIME	002	••
Calculation of the Reliability of a Flanged Connection from Known Quality Parameters		
 O. I. Moldavanov, A. G. Kamershtein, and A. K. Sneper End Seals for Shafts of Apparatus which Processes Spinning Solutions or Polymer Suspensions – V. I. Sokolov, V. V. Shibarov, L. M. Beder, L. B. Mal'kov, 	355	35
and V. M. Yankov	360	38
EXCHANGE OF EXPERIENCE Pneumatic Unit for Continuous Removal of Chips and Dusts from the Cutting Zone		
- P. P. Bakharev and A. Ya. Kleiman	362	39
Winding of Helical Coils Using Liquid Packing - V. A. Bubnov	364	40
Rapid-Acting Device for Connecting Pneumatic Tools to Air Networks - V. A. Polushkin	367	41
Standard Hydraulic Clamping Device - G. I. Maimin and V. E. Nesterenko	368	42
INFORMATION		
Production of New Equipment	36 9	42
- V. P. Belugin and Ya. S. Mkrtychan	373	44
Electrothermal Units - N. I. Rozovskii and M. A. Babaev	375	45 47
and A. V. Vaseiko	378	41
Drives for Horizontal Conveyer Centrifuges - R. A. Yaroslavtsev,		
A. V. Brazhnikova, and N. P. Vitkovskaya	380	48
VOLUME 9, NUMBER 5, MAY, 1973		
NEW MACHINERY AND EQUIPMENT		
Zinc-Dust Feeder - M. G. Goncharov and V. L. Burmaka	385	1
A New Sylphon Valve Construction - V. V. Oliferov and M. L. Smirnov	387	2
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Calculating the Dynamics of Suspended Conveyer Centrifuges - I. A. Fainerman,		
É. E. Bogorad, and V. V. Vishnyakov	389	3
Hydraulic Simulation during Tests of Safety Valves - Yu. I. Taras'ev Limiting Torque of Valve Electric Actuators - D. G. Kim, V. F. Kunitskii,	393	5
and N. A. Ryadinskii	396	6
Applied to Pipe Connection - N. N. Aleshin	400	8
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES A General Dependence for Heat Exchange in Boiling Cryogenic Liquids		
- I. P. Vishnev	404	10

	Engl./	Russ.
A Method of Designing Reverse-Osmosis Equipment, on the Basis of Empirical		
Correlations for the Effects of Concentration and Flow Hydrodynamics		
- Yu. I. Dytnerskii and R. G. Kocharov	413	15
- E. N. Smirnov, E. A. Kudryavtsev, and Yu. F. Malyshkin Effect of the Worm Design on the Thoroughness of the Mixing of Highly Viscous	418	17
Materials in an SN Mixer - A. D. Dolzhkov	421	18
NEW MATERIALS AND CORROSION CONTROL Compositions Based on Penton for Chemical Engineering — I. B. Svidenyuk,		
E. G. Bordonosenko, and S. V. Pedriiko	424	20
Hydrogen Fluoride – V. S. Zotikov, G. B. Bakhmutova, and N. A. Bocharova Corrosion Resistance of Some Stainless Steels in Phosphoric Acid	426	21
- V. S. Pakhomov and A. G. Parshin	429	22
EQUIPMENT MANUFACTURING TECHNOLOGY		
Soldering Aluminum and Its Alloys in Fabricating Cryogenic-Engineering Products	432	23
- E. I. Storchai, N. S. Baranov, and A. V. Sokolova		
- I. D. Chmykh and V. S. Drynov Equipment and Alloys for Wear-Resistant Surfacing of Sealing Faces of Fittings	436	25
- B. V. Tobak Effect of the Products of Oxidation of Relit and the Base Metal on the Reaction of Relit	438	26
with Fused Steel - V. Ya. Vorotnikov	441	28
ORGANIZATION AND ECONOMICS OF PRODUCTION Calculation of the Long-Range Requirement for Spare Parts for Pumps - N. V. Reznik	444	29
QUALITY, RELIABILITY, AND LIFETIME		
Effect of the Microrelief of Rubbing Faces of Sealed Refrigeration Compressors on Their Working Life - Yu. G. Shneider and Ya. V. Guzok	447	30
Effect of the Structure of Stellite on Its Wear Resistance - B. D. Voronkov and T. V. Pryanichnikova	450	32
EXCHANGE OF EXPERIENCE		
Test Use of Ceramic Flux Additive ANK-3 - I. V. Boldyrev	453	33
and Yu. F. Ionin	454	34
- V. V. Erokhin	456	34
Self-Chucking Faceplate for Machining Disc-Shaped Parts on a Lathe - S. V. Ryumin	458	35
INFORMATION Production of New Equipment	459	36
A New Design of Reciprocating Pump for the Hydraulic Transportation of Solid Materials	100	
- A. F. Tkachenko	462	37
and I. V. Bodunov	466	39
Protective Coating - G. I. Zhuteev and V. P. Kovalenko	468	40
FROM FOREIGN TECHNOLOGY Roller-Helical Transmissions. A Review of Foreign Patents - Yu. N. Vinokur,		
V. E. Gel'man, A. P. Savchenko, and M. P. Fel'dman	471	41
Harmonic-Drive Gear with Controllable Transmission Ratio - A. V. Brazhnikova	476	44
BOOK REVIEWS New Books	478	44

VOLUME 9, NUMBER 6, JUNE, 1973

NEW MACHINERY AND EQUIPMENT		
3-710-1800 Cord Calender - P. P. Suprun	483	1
and Yu. P. Vakurin	485	2
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Stability Analysis of Shells with Stiffening Rings - V. I. Rachkov, V. F. Kurylev,		
and I. V. Sorokina	488	3
- V. I. Sokolov and G. M. Chergeshtov Increasing the Output of Plastics Processing Equipment by Vibrating Action on the Melt	492	5
- N. I. Basov, A. I. Leonov, S. A. Lyubartovich, and I. I. Felipchuk Indication of Screw Compressors - P. E. Amosov, V. I. Kapitanov,	495	7
and V. L. Trofimov	499	8
- M. L. Morgulis and B. K. Trusov	503	11
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES		
Study of a Perforated-Louvered Plate for Fractionation and Absorption Column		
Equipment - A. B. Tyutyunnikov, V. L. Burin, A. D. Nikolaenko,	500	10
E. K. Tarynin, and V. A. Yarmak	506 510	12 14
- N. A. Shakhova and V. V. Mikhailov	518	18
- Yu. A. Shevich and E. I. Mikulin Pressure Drop in a Vortex Atomizing Contactor with Liquid Recirculation	522	20
- V. M. Lobanov and R. Sh. Safin	526	22
Efficiency of St3, 16GS, and 09G2S Steels at High Temperature and Hydrogen Pressure		
- M. B. Asviyan	529	24
- I. N. Kidin, V. I. Andryushechkin, and N. M. Levtonova EQUIPMENT MANUFACTURING TECHNOLOGY	532	25
Welding Copper with Steel in a Carbon Dioxide Atmosphere - N. T. Lositskii,		
V. Ya. Glushko, A. E. Mitus, N. S. Artemov, and A. M. Ofitserov Out-of-Zone Pressure-Jet Feed of Lubricant-Coolant in Centerless Grinding of Rollers	535	26
for Oil Chains - L. V. Khudobin and A. M. Budarin	538	28
- N. P. Sitnik, V. S. Maslennikov, and A. V. Babich	541	29
Production of Ceramic Molds for Precision Castings – V. N. Mikhailov Effect of Repeated Heating of 12KhM Steel Plate (Thick Sheet) on Its Mechanical	543	30
Properties - V. Z. Lev, V. D. Panin, and M. D. Dvortsin PRODUCTION ORGANIZATION AND ECONOMICS	545	31
A System for Objectively Estimating Petroleum Equipment Production		
- M. I. Belkin and Yu. A. Balashov	548	33
QUALITY, RELIABILITY, AND LIFETIME		
Improving the Quality of Spoked and Disked Gear Wheels — B. A. Berdnikov, S. G. Bondarenko, V. N. Bondarenko, V. K. Kuz'menko, and A. P. Polyvyanyi Improving the Durability of Hard Chromium Plating — S. G. Babaev, D. I. Agamirzoev,	552	35
I. V. Shlimak, and Sh. G. Nasibov	555	36

	Engl./Russ	
EXCHANGE OF EXPERIENCE		
A Stand for Automatically Welding Circumferential Seams – E. I. Kiyamutdinov Mechanized Welding of Studs to Supporting Frames of Column Trays – V. S. Tetnev	558	37
and N. N. Meshalkin	560	38
I. G. Nastasyuk, and F. O. Pasternak	561 563	38 39
INFORMATION		
Production of New Equipment	565	40
- A. I. Gladchenko	567	40
- V. F. Fedorov, S. S. Gerasimenko, and V. D. Volodin	569	41
A Universal Safety Valve for Liquid and Gaseous Media - Yu. I. Taras'ev,		
I. Kh. Paikin, G. G. Zhiburtovich, V. N. Mamontov, M. F. Podlipskii,	E77.0	49
and E. Z. Suponitskii. Teflon Bellows Fabricated by Chipless Machining Method – V. A. Fedchenko,	573	43
A. A. Kavera, I. S. Kolesnikov, V. A. Shcherbinina, and V. V. Litvinov	575	44
VOLUME 9, NUMBER 7, JULY, 1973		
NEW MACHINERY AND EQUIPMENT		
Sand Pumps — P. D. Savchenko	579	1
Feed Device for a Dryer Operating under Excess Pressure — V. L. Burmaka and M. G. Goncharov	581	2
Vacuum Locking Equipment VAFK-3 for Processing Woven Synthetic Fibers under Pressure — Yu. D. Kogan and V. V. Solodchenko	583	2
CONSTRUCTION AND DESIGN OF MACHINERY AND EQUIPMENT		
Design of Mechanisms for Profiling a (Tire) Chafing Strip — A. G. Zubenko,		
N. Ya. Gubenkov and E. B. Kipnis	585	3
Design of an Apparatus with a Helical Ribbon Mixer - I. I. Bortnikov,		
I. S. Pavlushenko, and V. D. Medvedev	588	4
Study of the Rigidity of Fluoroplastic Bellows — E. N. Kashigin and D. I. Shetulov Deformation of a Lens Expansion Bend under a Shearing Load — V. M. Bogomol'nyi	591	5
and N. N. Velichkin	594	7
V. B. Gridin, and A. Z. Mirkin	596	8
- A. I. Tumanov and A. A. Dmitrienko	600	10
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES		
Purification of Magnesium-Based Bisulfite Digestion Liquor in Cellulose Production		
- P. G. Vlasov and V. A. Chernikov	605	12
A. I. Barvin, and A. V. Mikulenko Experimental Determination of Working Surface Temperatures in the Cylinders of the 2S2VP 10/8 Oilless Compressor — N. T. Otroshko, V. M. Nikolaev,	608	14
V. A. Stepanyan, A. A. Belen'kii, and A. A. Badamyan	610	14
- I. I. Levchenko, A. A. Zak. Yu. A. Siderko, Yu. I. Sevastenko, and A. A. Shinkarenko	613	16
Mathematical Description of Concentrating Salt Solution in a Submerged Combustion	010	10
Apparatus - V. S. Babich and V. T. Efimov	615	17

and R. E. Gazarov.....

	Engl.	Russ
Shell and Tube Heat-Exchange Condensers with a Glassy Enamel Coating - V. T. Fotokakis, S. L. Yampol'skii, O. B. Plyushch, Yu. V. Zherebtsov,		
and N. F. Shvab	683	2
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Investigation of Strength of VT1-0 Titanium Alloy Vessels — M. V. Danilov,	686	4
S. M. Kutepov, V. I. Rachkov, and K. V. Smol'skii	690	6
- O. N. Shpakov Design Method for Safety Valves with Pressure Applied above the Seat - S. I. Grinberg	694	8
and I. R. Krichker	696	9
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES Laws of Filtration during Removal of Contaminants from Nitric Acid — K. V. Rybakov,		10
V. P. Kovalenko, and L. M. Rozanova	704	13
and É. Ya. Tarat	706	14
O. N. Solyanik, and V. D. Nerubatskaya	711	17
Steam-Jet Compressor — L. L. Murav'ev and V. S. Postikov NEW MATERIALS AND CORROSION CONTROL	714	18
Steel 1Kh2M1 Tubing for Furnace Coils of Catalytic Reformers — V. G. D'yakov, Yu. S. Medvedev, V. V. Meshcheryakova, and E. V. Bush Anticorrosion Coatings from Liquid Neoprene — V. T. Kopylov, V. I. Kononova,	717	19
and V. V. Furnichenko	720	21
Fabrication of New Extruder Screws and Restoration of Worn Extruder Screws by Plasma Hardfacing — A. M. Maksimchuk, G. A. Mesyats, V. G. Nechiporenko,		
and L. P. Andreev	722	22
V. A. Kuz'min, and A. S. Motora Determination of the Actual Clearance of the Plunger Pairs of Serially Manufactured	725	23
Oilwell Pumps — Yu. A. Saakov and A. M. Rabinovich	727 731	24 26
NORMALIZATION AND STANDARDIZATION		
Dimensional Series of Electrical Pumps for Pumping out Contaminated Water — I. N. Fel'gendler and B. V. Khimach		28
and V. G. Khibrikov	738	29
ORGANIZATION AND ECONOMICS OF PRODUCTION Experience in Organization of Standard Cost System in Computerized Data Media under Conditions of Single-Unit, Multiple-Item Production — A. N. Kuvalkin,		
E. E. Karpov, and V. V. Burov	739	30
Construction Industry Branch — L. V. Alievskaya, G. S. Popova, and A. D. Shapiro	742	31

	Engl.	/ Huss
QUALITY, RELIABILITY, AND LIFETIME		
A Method for Quantitative Evaluation of the Reliability of Mechanical Elements of Cryogenic Systems from Results of Weighted Tests — M. V. Zhirov	747	33
Effect of Variable Pressure on Wear and Breakdown of Nonmetallic Piston Rings - V. S. Davydov, B. S. Rotin, S. M. Medvedev, I. S. Prostorov,		
and L. A. Shteingart	749	34
EXCHANGE OF EXPERIENCE		
Competition for Monthly Overfulfilment of the Plan for Growth of Labor Productivity at Every Workplace — A. A. Kolesnikov and A. I. Tret'yakova	755	38
Equipment for the Mechanized Cutting of Circular and Elliptical Holes in the Walls of Cylindrical Vessels — G. M. Fokin	757	38
Forming Vessel Heads at the Dzerzhinsk Chemical Equipment Construction Plant (DCECP) - K. A. Popov, S. Yu. Bobovich, I. A. Kashuba, K. M. Plaskin,	101	30
and B. N. Shevelkin	760	40
A Device for Measurement of the Axial Perpendicularity of Two Holes — S. V. Ryumin	762	41
INFORMATION Rim Vulcanizer	764	42
PRODUCTION OF NEW EQUIPMENT		
Plant with Twin-Screw Granulator for Cable Plasticized Resins Based on PVC	766	42
Thickener U-210	768	43
Specialists in Technical Esthetics Improve Their Skills — S. S. Kleimenshova	769	43
- E. V. Shataev, R. M. Starodubov, and M. D. Volkova	770	44
Pressure Regulator — V. S. Mokrousov	774	46
and V. V. Krasnoyarskii	775	46
VOLUME 9, NUMBER 9, SEPTEMBER, 1973		
Personnel in Pulp-and-Paper-Industry Machinery Construction Overfulfill Their		
Socialist Obligations - I. V. Doroshenko	779	1
Advanced Technology in Petrochemical Equipment Construction - K. A. Zlobina	783	4
NEW MACHINES AND APPARATUS		
A Set-Up For Concentrating Thermolabile Liquids - A. V. Viter, A. N. Marchenko, M. T. Bannikov, and V. M. Barakin	789	7
Electromagnetic Valves for Automatic Boiler Plants - S. Kh. Shchuchinskii and A. A. Mel'nikova	792	8
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT Certain Aspects of Sedimentation Conveyer Centrifuge Scaleup - E. K. Dzhinchakadze,		
A. A. Nesterovich, and D. E. Shkoropad	794	9
Evaluation of Reliability of Centrifugal Machines - B. F. Gusakov	797	11
Safety Considerations of Heat Exchangers with Laminated Welded Sections		
L. P. Pertsev, A. K. Klimishen, V. I. Cheremskaya, and V. E. Nagornyi	801	13
Effect of Creep of Teflon Gaskets on the Hermeticity of Flanged Connections	804	15
- P. A. Pavlov, O. N. Kondakova, Yu. A. Sozonov, and E. M. Budin Effect of Seal Element Construction on the Degree of Regulator Nonuniformity	004	13
- A. P. Savchenko and Yu. O. Chernobyl'skii	808	17
INVESTIGATION AND CALCULATION OF THERMOPHYSICAL PROCESSES		
Heat Transfer during the Boiling of Some Organic Liquids in a Vertical Pipe		
Evaporator with Natural Circulation - D. Sh. Kleiman and A. N. Sokol	810	18

	Engl./	Russ.
Investigation of Regenerators Filled with 60° Corrugation Angle Disc Packing		
- A. I. Tumanov, A. A. Dmitrienko, and Yu. V. Svetlov	812	19
Test Unit for Investigating Hydrodynamic Characteristics of Atomizers - E. V. Balashov, E. N. Savinova, A. I. Goirakh, and N. N. Pronyakin	815	00
	919	20
NEW MATERIALS AND CORROSION CONTROL Multilayer Coatings Based on Pentaplast - E. G. Bordonosenko, Yu. A. Zybin		
and I. B. Svidenyuk	818	22
Effect of Chlorinated Hydrocarbons of Physico-Mechanical Properties of Filled Fluoroplastics - V. V. Chernyshov and E. V. Lyalin	820	23
EQUIPMENT MANUFACTURING TECHNOLOGY		
Automatic Welding of Thick Articles of Kh17N13M3T Steel with Electromagnetic Stirring of Weld Pool - A. N. Briskman, V. S. Gladyshko, V. D. Kuznetsov,		
V. Yu. Popovskii, and V. P. Chernysh	824	25
Processes of Forming Paperboard Web in Cylindrical Vacuum-Forming Units		
- N. N. Kokushin and I. D. Kugushev	827	26
Sensor - I. P. Elaev	831	28
Calculation of Forces in Press-Forming Pipe on Corniform Mandrel	026	91
- Yu. I. Berliner, V. N. Klimov, and A. Kh. Akmukhametov Kinetics of Fluxing Aluminum Alloys in Chloride - Fluoride Melts - E. I. Storchai,	836	31
V. M. Savel'eva, and E. N. Kukolev	841	33
to Structures Subject to Drawing - N. I. Kamakin and S. N. Makarova	844	35
ORGANIZATION AND ECONOMICS OF PRODUCTION		
Improving Standards for Repair of Thermoplastic Processing Equipment		
- S. F. Pokropivnyi and L. A. Timoshchuk	847	36
QUALITY, RELIABILITY, AND LIFETIME		
Use of Similarity and Dimensional Analysis for Investigating Hydraulic Abrasive Wear	0.51	00
- G. O. Sklovskii and B. M. Teverovskii	851	38
- L. A. Ivanov, G. N. Parkhomenko, V. A. Kaello, and M. M. Egorov	854	40
EXCHANGE OF EXPERIENCE		
Lightweight Cast Iron Gate Valves, $D_n = 500 \text{ mm}$ for $p_n = 10 \text{ kgf/cm}^2$ - E. G. Isarov, E. D. Bogdanov, and I. E. Litvinov	856	40
Mechanization of Welding during Manufacture of GR/10 Reduction Valves - V. G. Ar'kov,	000	40
A. I. Bessonov, Yu. M. Berezhnov, G. L. Gordeev, and V. I. Kirillov	858	41
Parts Painting and Drying Line - S. G. Kozlov	860	42
Mechanized Line for Pickling Brass Parts - M. R. Shumikhin	862	43
INFORMATION		
Production of New Equipment	864	44
S. K. Khiterkheev, V. N. Monakhov, S. L. Peshkovskii, and V. I. Fedyanin	867	45
Metal Piping Lined with Thermoplastics - G. A. Svetlichnyi	869	46
VOLUME 9, NUMBER 10, OCTOBER, 1973		
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT		
Tension of Strip Materials over Different Portions of Multiroll Conveying Devices		
- V. I. Maklashin, Yu. Ya. Margolin, N. I. Sarbatova, and N. A. Zholudev	875	1
Computerized Synthesis of Arrangement for Folding Six-Sector Drums of Novel		
Design - I. N. Kul'kov, A. V. Morozov, and V. N. Roshchin	878	2
and B. S. Lando	881	4

	Engl./	Russ
Construction of Information Models of Reciprocating Compressors - É. V. Dubrovskii Determining the Dimensions of Outlet Openings of Hoppers for Loose, Free-Flowing	885	6
Materials - B. S. Modestov and G. S. Posysoev	887	7
INVESTIGATION AND CALCULATION OF THERMOPHYSICAL PROCESSES Hydraulic Resistance of Vaned Vortex Inducers - V. G. Pravdin, F. F. Kulabukhov,		
M. F. Mikhalev, E. G. Nikushev, and I. A. Volkov	890	9
and I. V. Bilik	893	11
Coolers with Disc-Doughnut Baffles — K. I. Klyuev and V. N. Kosogorov	896	12
and A. P. Baskakov	899	14
Corrosion of Joints in Aluminum and Its Alloys Soldered with Low-Temperature Lead-Tin Solders - E. I. Storchai, L. N. El'chinova, A. V. Sokolova,		
and M. V. Kuznetsova	902	15
- I. Ya. Klinov, É. A. Skuratova, V. K. Pavlova, and I. K. Yartsev EQUIPMENT MANUFACTURING TECHNOLOGY	905	17
Standard Method for Work-Hardening Piston Rod Threads of Large Piston Compressors — I. A. Sosnovskii, B. M. Gusev, G. A. Novikov, and V. G. Berestovskii	908	18
The Effect of Edge Preparation Method on the Corrosion Resistance of Welded Joints in Kh18N10T Steel - I. S. Shapiro, B. D. Beider, A. A. Budakov,	300	10
E. P. Kharitonov, I. L. Ring, and G. I. Agapov	911	20
E. V. Gerlivanov, and M. M. Komarov	914	22
and Yu. N. Chentsov Electrochemical Machining of Nitrided 38KhMYuA Steel - A. V. Televnoi,	917	23
V. I. Molodkin, A. N. Zinkin, and Yu. S. Poselyagin	919	24
NORMALIZATION AND STANDARDIZATION Unified Centrifugal Pumps Produced by the M. I. Kalinin Moscow Pump Works		
- V. V. Burenin, M. E. Zingerman, and A. Ya. Novikov	921	25
Increasing Labor Productivity at Compressor and Refrigeration Equipment		
Manufacturing Plants - A. G. Cheshko and V. N. Avdeenko	924	26
of Discussion) - S. N. Kaufman	927	28
QUALITY, RELIABILITY, AND LIFETIME Increasing the Reliability of Friction Units of Pipeline Equipment - Yu. D. Simkin,		
M. F. Barsukov, A. G. Nelidina, Yu. V. Vilim, and A. D. Belov	930	29
E. V. Stepanyan, and M. K. Kurbanov	933	30
Type-Standardization of Manufacturing Processes in the Fabrication of Rubber Tire Molds - M. I. Kosyi, S. P. Savchenko, I. M. Nesterenko, N. I. Terzi,		
and N. M. Kotenko	936	32
B. G. Kostenko, V. P. Makarenko, A. I. Tsympov, and G. S. Borodin	938	33

	Engl./	Russ
Casting the Wetted Operating Parts of Submerged Electric Pumps Using High-		
Strength Cast Iron - D. N. Truba, I. D. Chmykh, L. I. Rappoport,		
and V. S. Drynov	940	33
Film Coatings for Preservation of Manufactured Articles - R. B. Mochalina	942	34
	010	0.
INFORMATION Production of New Equipment		
Production of New Equipment	943	34
and A. M. Rabinovich	947	36
Pulse Regenerated Bag Filters - A. D. Mal'gin and V. P. Korsakov	950	37
- E. N. Smirnov, E. A. Kudryavtsev, and E. V. Smirnov	953	39
FROM FOREIGN TECHNOLOGY		
The Strength of Materials in Hydrogen at Ultrahigh Pressures - A. P. Korchagin		
and V. D. Molchanova	956	40
BOOK REVIEWS		
Argon Production Equipment. V. P. Alekseev, A. E. Poberezkin, and V. I. Los'		
- Reviewed by A. P. Klimenko	959	42
New Books	960	42
NOT HAVE A WAVE BED AN AND THE PARTY OF THE		
VOLUME 9, NUMBER 11, NOVEMBER, 1973		
Fifty-Sixth Anniversary of the Great October Socialist Revolution	967	1
Five-Year Plans - the Shockwork, Skill, and Research of the Youth (Experience	001	-
Gained in the Work with Young Specialists at the VNNIIkholodmash)		
- I. M. Kalnin' and V. S. Shumov	973	5
NEW MACHINERY AND EQUIPMENT		
An Assembly for Tubeless Well Operation - I. I. Koshko and M. P. Kornilov	976	6
Redesigned FPN-1251L Centrifuge - B. V. Popov, N. Ya. Nikitenko,	0.0	
and M. V. Kovalev	978	7
DESIGN AND CALCULATIONS OF MACHINES AND EQUIPMENT		
Investigation of an Automatic Tension Control System - Yu. Ya. Margolin, N. I. Sarbatova, N. A. Zholudev, and L. B. Ivanov	980	8
How to Select Toothing Profile of Rotors in Dry Compression Helical Compressors	000	O
- P. A. Andreev and A. I. Shvarts	983	9
How to Make Effective Use of the Surface of the Unloading Plate of an Automatic		
Balancing Disk in a Centrifugal Pump - L. E. Chegurko	985	10
Contribution to the Theory Behind the Blow-Molding Process - V. I. Morogin,		
V. K. Skuratov, and K. A. Salazkin	989	12
Performance of a Shaft-End Seal with an Elliptical Ring - A. D. Domashnev	000	14
and V. K. Sergienko	993	14
INVESTIGATION AND CALCULATION OF THERMOCHEMICAL PROCESSES		
Some Results of Testing a Large-Scale Helium Refrigeration Assembly		
- N. A. Afanas'ev, I. K. Butkevich, S. P. Gorbachev, E. A. Dokshitskii,		
S. N. Kondrat'ev, A. S. Nikolaev, and Yu. P. Tsapov	995	15
Hydrodynamic Possibilities of Dryers with a Mechanically Suspended Bed	000	177
- A. A. Koryagin	998	17
The Critical Space Factor of a Fluidized Bed Reactor Filled with Ferromagnetic Particles - V. V. Kafarov, D. D. Logvinenko, O. P. Shelyakov, V. L. Kireikova,		
and E. I. Podshchipkova	1003	19
Mixing of Suspensions in Mixers with Several Stirrers – I. I. Bortnikov		
and I. S. Paylushenko	1005	20

	Engl./	/Russ
Effect of Liquid Viscosity on Film Thickness during Ascending Cocurrent Flow with	4000	
a Gas - A.S. Gorshkov, P. A. Semenov, A. M. Tsirlin, and M.S. Reibakh	1008	22
NEW MATERIALS AND CORROSION CONTROL Investigation into the Long-Term Strength of Parent Metal Welds of a Sheet Made from VT1-0 and OT4-0 - M. V. Danilov, L.S. Pritykina, A. I. Kosarev,		
and N. V. Parfenova	1011	23
	1013	44
PRODUCTION TECHNOLOGY The Effect of Welding Parameters on the Strength and Corrosion Resistance of Welded Joints in Titanium - G. M. Shelenkov, V. E. Blashchuk, L. M. Onoprienko Heat Treatment of 0Kh23N18 Steel Equipment - V. Z. Lev, L. D. Porshneva,	1016	25
A.S. Zubchenko, and V.A. Ermilov	1019	27
NORMALIZATION AND STANDARDIZATION		
Industry-Wide Standard for Bearings in Cylindrical Vertical Vessels - Yu. F. Pirogov, V. I. Shtandenko, and L. A. Rodionov	1021	28
ORGANIZATION AND ECONOMICS OF PRODUCTION		
Production Development Funds and Their Significance for the Technical Inprovement of Production (a Discussion) – L. A. Romanova	1022	28
Compressors - R. N. Marakaeva	1027	31
QUALITY, RELIABILITY, AND LIFETIME		
Investigation of Material Reliabilities under Gaseous Abrasive Wearing Conditions		
- V. I. Krasnov and I. B. Zhilinskii	1029	32
- A. A. Velichko, A. I. Zolotar', and O. V. Yaremenko	1033	34
V. V. Nezhdanov, and G. I. Karnkovskii	1037	36
EXCHANGE OF EXPERIENCE Redesigning Type M Pneumatic Chipping Hammers - V. P. Bukhalev, D. A. Ermoshin,		
and B. S. Treskunov	1040	38
Die for Punching Holes in Parts Made from Sheet Material - V.A. Polushkin INFORMATION	1041	38
Manufacture of New Process Equipment	1043	39
and N. V. Nikitin	1046	40
I. G. Grishaev, A. I. Pronin, and G. A. Minaev Unit for Superfine Grinding of Organic Dyes and Pigments - A. I. Garnyi	1049	42
FROM FOR EIGN TECHNOLOGY	1051	43
New Filter Centrifuges - B. N. Borisoglebskii	1053	44
VOLUME 9, NUMBER 12, DECEMBER, 1973		
NEW MACHINES AND EQUIPMENT		
A Unit for Rewinding and Transporting Cable - I. I. Koshko	1059	1
and E. N. Eremenko	1061	2

DEX

11

	Engl./I	Huss.
DESIGN AND CONSTRUCTION OF MACHINERY AND EQUIPMENT		
Calculating the Profile of a Drum Dryer Blade - V. Ya. Valuiskii	1063	3
R. N. Kalantarov, A. V. Krutkin, and S. A. Skvirskii	1065 1069	6
Piston-Pair Sticking in Pumps for Compressed Gases - D. E. Anel'chik,		
B. E. Trinchuk, and E. G. Galzman	1075	9
Calculation of Constant Rate Cake Forming Filtration - N. V. Shpanov	1077	10
and A. N. Planovskii	1083	13
F. P. Zaostrovskii, and A. N. Krasikov	1086	14
S. S. Petukhov, I. N. Kiselev, and I. P. Shomin	1089	15
- Yu. M. Vinogradov, G. L. Shvarts, V. A. Moroz, and L. S. Makarova	1094	18
Acid - L. P. Lozovatskaya, I. K. Burtseva, and I. A. Levin	1100	21
EQUIPMENT MANUFACTURING TECHNOLOGY Chill Casting of Iron Vessels for Enameling, Using Shell Cores of Liquid Air-Curing Mix — A. V. Borodin, M. A. Glukhovskii, I. G. Osinskii, and V. S. Shapoval How to Attain Required Accuracy of Some Basic Assembly Parameters of Cone Bits and	1103	22
Drill Heads (Discussion Article) - A. A. Chernik	1105	23
and V. I. Rymar'	1107	24 26
ORGANIZATION AND ECONOMICS OF PRODUCTION	1111	20
Analytical Method of Normalizing Design Operations (by Way of Discussion)		
- A. K. Tarasov and I. M. Kireev	1116	29
and I. B. Zhilinskii	1121	31
QUALITY, RELIABILITY, AND LIFETIME Taking into Account a priori Information during Evaluation of the Reliability of		
Mechanical Components - M. V. Zhirov and N. V. Filin	1125	33
Wear Resistance of D7KhFNSh Chisel Tool Steel - G. M. Sorokin and V. A. Dotsenko	1127	34
INFORMATION	1100	0.5
Production of New Equipment	1129 1132	35 36
Results of Field Tests of Hardened Cast Iron Piston Rings - I. D. Mikhailets	1134	37
and K. K. Kasimov. Hydraulically Driven Installation for Investigating the Operation of Submerged	1135	
Centrifugal Pump Stages - L. G. Chicherov and V. V. Borisov	,	38
and F. G. Rzaev.	1136	38
BOOK REVIEWS INDEX	1137	39
Author Index, Volume 9, Numbers 1-12, 1973	1143	
Tables of Contents, Volume 9, Numbers 1-12, 1973	1149	